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THE IMPORTANCE OF IRANIAN AND MIDDLE EAST OIL
TO WESTERN EUROPE UNDER PEACETIME CONDITIONS

I. The Problem:

To estimate the importance of (a) Iranian oil production and (b) total Middle East oil production to Western Europe in time of peace.

II. Assumptions:

That access to (a) Iranian oil production, and (b) total Middle East oil production is denied to the Western Powers by means other than war.

III. Discussion: (See Enclosure A.)

IV. Tables: (See Enclosure B.)

V. Conclusions:

1. The amount of crude oil and refined products now exported from Iran could be derived from other areas by small increases in crude production and by fuller use of available refining capacity. At the rates of consumption and levels of prices prevailing at the end of 1950, the extra annual dollar charge to Europe of procuring this amount of oil elsewhere would be about \$700,000,000.*

2. Loss of Iranian oil production and of the refinery at Abadan would temporarily have an adverse effect upon Western European economic activity, and would impose severe financial losses particularly upon the British, who control all the oil production of the country. Although the effect of the loss of Iran on the volume of petroleum which could be made available to Western Europe might be overcome in a relatively short time by developing reserves and building refineries elsewhere, the financial effects would be overcome slowly, if at all.

This paper has been prepared in response to a request from the Senior Staff of the National Security Council.

*Figures in this paper representing estimates of extra annual dollar costs and of the extent of oil shortages which would result from a loss of Iranian or Middle Eastern oil are indicative rather than exact. They will hold true as given only as long as oil prices stay at the levels of late 1950, and oil production and consumption continue at the rates currently estimated for the fiscal year 1950-51. The general effect of the rearmament programs in the US and in Western Europe will presumably be to raise the consumption of oil, and probably also to raise its price. These factors would tend to make the oil of the Middle East more important to the western economies, and to cause its loss to be even more severely felt than is indicated by the figures cited in this paper.

SECRET

- 2 -

3. If all Middle East oil production were to be lost, a cutback of about 10 percent in the total oil consumption of the non-Soviet world would have to be imposed, even after a maximum practicable increase of production from other sources. This would call for substantial rationing in the United States as well as elsewhere. International allocation would be required. At the price level of late 1950 a net increase in dollar requirements of from \$1 to \$1.2 billion would occur if Western Europe, after a cutback of 10 percent in its consumption, were to procure from alternative sources an amount of oil sufficient to make up for the loss of Middle East imports.

4. It is estimated that if a cutback of 10 percent from present levels of oil consumption were imposed on Western Europe, it would permit maintenance of industrial production at approximately the levels of late 1950, and of transportation at the extreme minimum necessary for that purpose. No appreciable expansion of industry, whether for normal economic development or for rearmament, would be possible. Rationing even to reduce consumption by 10 percent would present great difficulties in time of peace.

5. No way can be foreseen at present by which a satisfactory adjustment, over a longer period of time, could be made to the total loss of Middle East oil, unless new reserves are proved elsewhere, or new sources of energy developed. Western Europe therefore would not be able to compensate for the loss of Middle East oil save by profound changes in its currently planned economic structure.

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1. Total petroleum requirements of Western Europe (including the UK) for the fiscal year 1950-51 are estimated at 66 million metric tons, of which 42.5 million will be imported as crude and 20 million as refined products; the remaining 3.5 million tons will be derived from indigenous sources. Of the total import requirements, 43.8 million metric tons, representing 70 percent, will come from the Middle East. In addition, international bunkers of 6 million tons and US military supplies aggregating approximately 2.5 million metric tons will be lifted in the Middle East area.

2. Of the total requirements of Western Europe, it is estimated that Iran alone will supply the following:

<u>Millions of Metric Tons</u>		<u>Percent of WE Requirements</u>
<u>Crude Oil</u>		
7		16
<u>Refined Products</u>		
6.3 (including British Military)		31
<u>Bunkers</u>		
4		67

3. It is estimated likewise that of total Western European requirements, the entire Middle East area will supply the following:

<u>Millions of Metric Tons</u>		<u>Percent of WE Requirements</u>
<u>Crude Oil</u>		
38		90
<u>Refined Products</u>		
8.3		40
<u>Bunkers</u>		
6		100

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Loss of Iranian Production

4. If Iranian oil should cease to be available, the seven million metric tons of crude oil by which Western Europe would thereby fall short (according to the 1950-51 estimates) could be more than made up by increasing the output of British companies operating elsewhere in the world. Indeed it could all be replaced, at some additional dollar cost, from the other producing areas of the Middle East. Replacement for the balance of Iran's crude oil output (that processed at Abadan) could also be obtained outside the Soviet sphere by releasing shut-in production and by more rapid drilling of known reserves.

5. Loss of the Abadan refinery, with its capacity of 27 million metric tons per year, would call for much more difficult adjustments than would the loss of Iranian crude oil output. There is now in the non-Soviet world, outside Iran, enough refining capacity to process an additional amount of crude equal to that now going through the Abadan plant. If Abadan were lost, however, at least six months would be required to place marginal plants in operation, to change the composition of refinery output, to alter tanker routings, and to complete the redistribution of crude oil among the other refineries.

6. To acquire from other sources the amounts of crude oil and refined products which Western Europe now imports in one year from Iran would involve an extra dollar expenditure of about \$700,000,000, assuming the level of prices remained the same as that prevailing at the end of 1950.

7. Loss of Iranian oil production and of the refinery at Abadan would temporarily have an adverse effect upon Western European economic activity, and would impose severe financial losses particularly upon the British, who control all the oil production in the country. Although the effect of the loss of Iran upon the volume of petroleum which could be made available to Western Europe might be overcome in a relatively short time by developing reserves and building refineries elsewhere, the financial effects would be overcome slowly, if at all.

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SECRET

- 3 -

Loss of all Middle East Oil

8. The loss of all Middle East oil production would reduce the current supply of crude oil in the non-Soviet world by about 93 million metric tons per year. By increasing production to the greatest degree feasible in areas still accessible, this shortage could be reduced to about 53 million metric tons, which is equivalent to about 10 percent of estimated 1950-51 total oil consumption in the non-Soviet world. Sufficient refining capacity would be available to process the reduced total supply of crude, but the problems of readjustment and allocation mentioned in paragraph 5 above would, of course, be greater, and the time required to carry them out would be longer.

9. The maximum cutback in Western European oil consumption which would still permit maintenance of industrial production at approximately the levels of late 1950, and of transportation at the extreme minimum necessary for that purpose, is estimated to be about 10 percent. Such a cutback would permit no appreciable expansion of industry, whether for normal economic development or for purposes of rearmament, and it would cover only about 6.6 million metric tons out of the total deficiency of 53 million. Hence it is clear that even if Western Europe were restricted to less than 90 percent of its estimated 1950-51 consumption, the loss of all Middle East oil would make substantial rationing necessary in the United States. Despite the fact that the US is virtually self-sufficient in oil production, it would have to cut its consumption by at least 10 percent. International allocation would immediately become necessary.

10. At the price level of late 1950 a net increase in dollar requirements of from \$1 to \$1.2 billion would occur if Western Europe, after a cutback of 10 percent in its consumption, were to procure from alternative sources an amount of oil sufficient to make up for the loss of Middle East imports.

11. No way can be foreseen at present by which a satisfactory adjustment, over a longer period of time, could be made to the total loss of Middle East oil, unless new reserves are proved elsewhere, or new sources of energy developed. Though the Middle East now contributes only 18.4 percent of total non-Soviet production, it contains 44.4 percent of proved reserves outside the Soviet orbit. A very large pro-

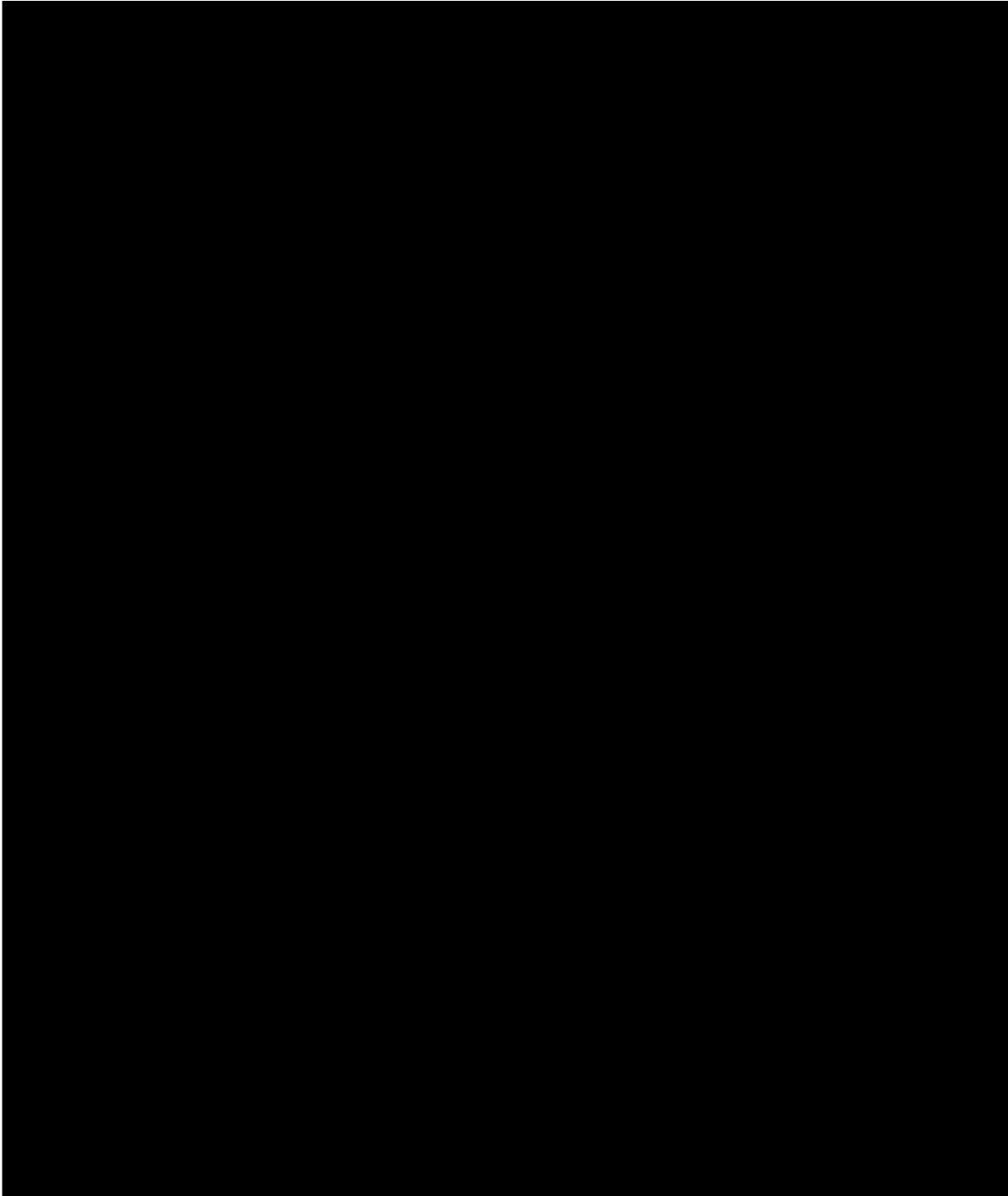
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- 4 -

portion of the presently contemplated increase in non-Soviet oil supply is expected to come from the Middle East. Western Europe, therefore, would not be able to compensate for the loss of Middle East oil save by profound changes in its currently

25X6A planned economic structure.



SECRET

SECRET

ENCLOSURE B

Table 1A.	Estimated Imports of Crude Oil and Refined Products into OPEC Countries 1950-1951.
Table 1B.	Estimated International Bunker Liftings (Refined Products) in the Persian Gulf Area.
Table II.	Control of World Crude Reserves 1950-1951.
Table III.	Ownership of World Crude Production 1950-1951.
Table IV.	Ownership of World Refining Capacity 1950-1951.
Table V.	Loss of Iranian Oil.
Table VI.	Loss of All Middle East Oil.

SECRET

SECRET

ENCLOSURE B

TABLE 1A

ESTIMATED IMPORTS OF CRUDE OIL AND REFINED
PRODUCTS INTO OEEC COUNTRIES 1950-51

From

	<u>1,000 MT/Y</u>			<u>Crude Percent</u>	<u>Products Percent</u>	<u>Total Percent</u>
	<u>Crude</u>	<u>Products</u>	<u>Total</u>			
<u>Eastern Hemisphere</u>						
Middle East (Includes US military)	38,065	8,321	46,386	89.69	41.39	74.16
Other	---	100	100	---	.50	.16
Total	38,065	8,421	46,486	89.69	41.89	74.32
<u>Western Hemisphere</u>						
USA	150	1,850	2,000	.35	9.20	3.20
Caribbean	4,067	9,604	13,671	9.58	47.77	21.86
Other	160	230	390	.38	1.14	.62
	4,377	11,684	16,061	10.31	58.11	25.68
<u>GRAND TOTAL</u>	<u>42,442</u>	<u>20,105</u>	<u>62,547</u>	<u>100.00</u>	<u>100.00</u>	<u>100.00</u>

TABLE 1B

ESTIMATED INTERNATIONAL BUNKER LIFTINGS (REFINED
PRODUCTS) IN THE PERSIAN GULF AREA

1950 - 1951

	<u>1,000 MT/Y</u>	<u>Percent</u>
From Iran	4,000	66.67
From Other Middle East	2,000	33.33
Total	6,000	100.00

SECRET

SECRET

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TABLE II

CONTROL OF WORLD CRUDE RESERVES

1950-1951

25X6A

Area	United States 1000 MT	%		%	Other 1000 MT	%	Total 1000 MT	% World Total
<u>Eastern Hemisphere</u>								
Middle East								
Iraq	170,445	23.7		52.6	170,445	23.7	719,178	7.2
Kuwait	753,424	50.0		50.0	—	—	1,506,849	15.1
Saudi Arabia	1,232,877	100.0		—	—	—	1,232,877	12.3
Iran	—	—		100.0	—	—	958,904	9.6
Bahrain	—	—		100.0	—	—	21,917	.2
Total	2,156,746	—		—	170,445	23.7	4,439,725	44.4
East Indies Islands	62,172	31.3		68.7	—	—	198,800	2.0
OEEC Countries	5,824	20.0		25.0	16,044	55.0	29,171	.3
Total	68,006	—		—	16,044	—	227,802	—
<u>Western Hemisphere</u>								
US and 25X6A								
Caribbean Exporting Areas	888,865	61.5		38.1	5,781	0.4	1,445,309	14.5
Total	4,602,427	—		—	122,219	—	5,275,309	—
Other	—	—		—	—	1.4	45,136	.5
TOTAL WORLD							9,987,972	

SECRET

OWNERSHIP OF WORLD CRUDE PRODUCTION
1950-1951

3.

Area	United States 1000 MT Percent		Other 1000 MT Percent		Total 1000 MT Percent of World Total	
<u>Eastern Hemisphere</u>						
<u>Middle East</u>						
Iraq	1,720	23.7	1,720	23.7	7,250	1.44
Kuwait	9,500	50.0	-	-	19,000	3.77
Saudi Arabia	29,750	100.0	-	-	29,750	5.91
Iran	-	-	-	-	35,000	6.95
Qatar	476	23.8	476	23.8	2,000	.40
Bahrain	-	-	-	-	1,500	.30
Total	41,446	-	2,196	-	94,500	18.77
East Indies Islands	3,350	31.3	-	-	10,700	2.13
OEEC Countries	538	20.0	1,563	55.0	2,782	.55
Total	3,888	-	1,563	-	13,482	-
<u>Western Hemisphere</u>						
<u>Caribbean Exporting Areas</u>						
Areas	55,055	61.5	327	0.4	86,490	17.77
Total	343,805	-	10,327	-	388,240	-
Other	-	-	-	1.4	7,110	1.41
Total World	-	-	-	-	503,332	-

OWNERSHIP OF

CAPACITY

Area	United States 1000 MT Percent		Other 1000 MT Percent		Total 1000 MT Percent of World Total	
<u>Eastern Hemisphere</u>						
25X6A East	-	-	-	-	800	.02
Kuwait	625	50.00	-	-	1,250	.25
Saudi Arabia	6,500	100.00	-	-	6,500	1.30
Abadan	-	-	-	-	27,500	5.52
Tripoli	142	23.75	173	28.75	600	.01
Bahrain	8,000	100.00	-	-	8,000	1.61
Total	15,267	-	173	-	44,650	-
East Indies Islands	3,200	31.68	-	-	10,100	2.03
25X6A & East Asia	-	-	-	-	2,500	.50
 						
Northern Africa & Spain	-	-	-	-	3,450	.69
OEEC Countries	-	-	-	-	44,429	8.92
	3,200	-	-	-	61,129	-
<u>Western Hemisphere</u>						
United States	-	-	-	-	300,000	60.20
 	-	-	15,500	100.00	15,500	3.11
Caribbean Exporting Areas	-	-	8,350	100.00	8,350	1.68
Colombia	1,420	100.00	-	-	1,420	.28
Venezuela	7,007	57.2	-	-	12,250	2.46
Peru	1,452	96.8	24	1.6	1,500	.30
Ecuador	-	-	-	-	230	.00
Trinidad	-	-	-	-	4,750	.95
Netherlands E. Indies	21,000	53.4	-	-	39,300	7.89
Total	30,879	-	23,874	-	383,300	-
Other Latin America	-	-	-	-	9,250	1.86
Total	30,879	-	23,874	-	392,550	-
Total World					498,329	-

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TABLE V
LOSS OF IRANIAN OIL
 (Millions of Units)

1. Production - physical quantities (1950-51)
 - a. Crude 35 MT/Y (metric tons per year)
 - b. Refined 25 MT/Y
2. Loss of crude imports from Iran by Western Europe 7.5 MT/Y
3. Dollar element of cost in replaced crude \$55
4. Loss of refined products imported from Iran by Western Europe and Sterling Area 25 MT/Y
5. Annual dollar cost of replacing refined (Item 4)
\$765-775
6. Gross dollar cost of replacing crude and refined (Items 3 and 5)
\$820-830
7. Dollar savings - equipment and services \$110-120
8. Estimated net dollar cost annually (Item 6 minus Item 7)
\$710

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TABLE VI

LOSS OF ALL MIDDLE EAST OIL

(Millions of Units)

1. Production - physical quantities (1950-51)		
a. Crude	24.5	MT/Y
b. Refined	44.7	MT/Y
2. Loss of crude imports from Middle East by Western Europe	43.5	MT/Y
3. Dollar element in replaced crude	\$800	
4. Loss of refined products imported from Middle East by Western Europe and Sterling Area	38	MT/Y
5. Annual dollar cost of replacing refined (Item 4)	\$1200	
6. Gross dollar cost of replacing crude and refined (Items 3 and 5)	\$2000	
7. Dollar savings - equipment and supplies, profits to Bahrien Petroleum Co., dollar element in goods furnished Middle East by Western Europe, etc.	\$600	
8. Estimated <u>net</u> dollar cost annually assuming no cutback in current requirements (Item 6 minus Item 7)	\$1400	
9. Ten percent cutback would save	\$300	

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